

## ABSTRACT OF THE DISCLOSURE

Recombinant antibody-based molecules that trigger both T-cell and B-cell immune responses are disclosed. The recombinant molecules are comprised by at least one targeting unit and at least one antigenic unit connected through a dimerization motif. Also disclosed are nucleic acid molecules encoding the recombinant antibody-based molecule and methods of treating multiple myeloma or lymphoma in a patient using the recombinant antibody-based molecules or the nucleic acid molecules.